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**BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

Paper No. 18

Application Number: 09/207282
Filing Date: 12/08/98
Appellant(s): Conboy et al.



Jose W. Jiminez
For Appellant

## EXAMINER'S ANSWER

This is in response to appellant's brief on appeal filed 8/24/01.

*(1) Real Party in Interest*

A statement identifying the real party in interest is contained in the brief.

*(2) Related Appeals and Interferences*

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief. The appellant's brief states there are no related appeals or interferences.

*(3) Status of Claims*

The statement of the status of the claims contained in the brief is substantially correct.

*(4) Status of Amendments After Final*

The appellant's statement of the status of amendments after final rejection contained in the first paragraph of section (4) of the brief is correct.

The examiner disagrees with the fourth sentence of the second paragraph of section (4). The examiner did not examine the affidavit as a post-AIPA attempt at gaining the benefits of 35 U.S.C. 103 (c ), but as a post final rejection presentation of an affidavit not complying with the timeliness requirements of MPEP 716.01 (A) 1; presenting new issues for consideration after final; and failing to address a portion of the rejected claims-by either cancellation or placement into condition for

allowance-through the presentation of a instrument applicable only to patentably indistinct claims. The applicant appears to have confused an examiner presented solution to his dilemma with the rational.

The examiner is in agreement with the remainder of the second paragraph of section (4) regarding the status of amendments.

*(5) Summary of Invention*

The summary of invention contained in the brief is correct.

*(6) Issues*

The appellant's statement of the issues in the brief are incorrect. The applicant misidentifies the issues by identifying secondary conceptual legal issues arising only upon contingent upon decisions of primary legal and factual issues falling a certain way, those primary issues are in dispute.

1 (a). The issue is whether an affidavit initially presented after final and on the second response after the initial rejection after final must be accepted to overcome a rejection.

1 (b). The issue is whether a 130 affidavit presented after final must be accepted to overcome some rejections when some rejected claims remain which are patentably distinct from the claims of the art used in the rejection.

1 (c). The issue is whether an affidavit initially presented after final and on the second response after the initial rejection after final which does not place the claims in

condition for allowance, must be accepted to overcome a rejection.

2. The issue is whether there is sufficient motivation to modify Conboy et al. '566 as claimed.

3 (a). The issue is whether Conboy et al. alone or in combination with Burney or Tau et al. discloses the classification of empty carriers into a plurality of types.

3 (b). The issue is whether Conboy et al. alone or in combination with Burney or Tau et al. disclose global parameter passing thereby obviating the use of global passing of mover rate parameters parameters.

3 (c ). Whether Conboy et al. alone or in combination obviates the use of carrier movement contingent upon prioritization.

3 (d). Whether Conboy et al. alone or in combination obviates the carrier movement contingent calculating a system move rate for the empty carriers, and moving the carrier only if the move rate is below a predetermined threshold.

***(7) Grouping of Claims***

Appellant's brief includes a statement that the issues presented in the claims may be grouped as follows: Group I: claim 1-6, 10-15, and 19-20; Group II: claims 7 and 16; Group III claims 8 and 17; Group IV claims 9 and 18.

The examiner sees distinct issues present contrasting claim 1 from claim 10 would further break the Group I claims into Group IA: claims 1-6 and 19-20; Group IB: claims 10-15.

The examiner agrees with applicant's group IV characterization.

The applicant did not select a representative claim from the groups. Absent any such identificiation, the examiner identifies claim 10 as best typifying applicant's group I or claim 1 as best typifying examiners Group 1A and claim 10 as best typifying examiners Group 1B; claim 16 as best typifying Group II; claim 17 as best typifying Group III; claim 18 as best typifying group IV.

***(8) Claims Appealed***

The copy of the appealed claims contained in the Appendix to the brief is correct.

***(9) Prior Art of Record***

The following is a listing of the prior art of record relied upon in the rejection of claims under appeal.

| | | |
|---|---|---|
| 5,838,566 | Conboy et al. | 11-1998 |
| 4,829,445 | Burney | 5-1998 |
| 5,751,581 | Tau et al. | 5-1998 |

***(10) Grounds of Rejection***

The following ground(s) of rejection are applicable to the appealed claims:

1. Claims 1-18, as in paper number 5, along with newly added claims 19-20, are rejected under 35 U.S.C. 103(a) as being unpatentable over Conboy et al. '566.

Conboy et al. '566 discloses:

(re: cl 1) An automated material handling system, comprising:
a plurality of material carriers including a plurality of empty carvers classified into two or more carrier types;
one or more stock areas each including a plurality of bins for storing material carriers, wherein each stock area is associated with one or more thresholds for each carrier type;
a control system coupled to a first one of the stock areas for computing an empty percentage for the first stock area for each carrier type, the empty percentage for a particular carrier type being the percentage of bins of the first one stock area which contain empty carriers of the particular type; and
a transportation system responsive to the control system for selectively moving an empty carrier of a certain carrier type between a staging area and the first stock area based on a comparison of the empty percentage for the certain carrier type to the one or more thresholds of the first stock area for the certain carrier type (c 12 L 50-67);

(re: cl 2) the material carriers include semiconductor wafer carriers (c 13 L 1-3);

(re: cl 3) the one or more thresholds for the empty carrier of the certain carrier type include a maximum value and wherein the transportation system moves an empty carrier of the certain carrier type from the first stock area to the staging area if

the maximum value is exceeded by the empty percentage of the certain carrier type (c 13 L9-14);

(re: cl 4) The automated material handling system as recited in claim 1, wherein the one or more thresholds for the empty carrier of the certain carrier type include a minimum value and wherein the transportation system moves an empty carrier of the certain carrier type to the first stock area from the staging area if the empty percentage of the certain carrier type falls below the minimum value (c 13 L 14-19);

(re: cl 5) the staging area includes a second one of the stock areas (c 13 L 20-23);

(re: cl 6) the control system calculates a system move rate as the number of the plurality of material carriers moved by said transportation system in a predetermined time period and the transportation system moves the empty carrier of the certain carrier type between the staging area and the first stock area only if the system move rate is less than a predetermined value (c 13 L 35-44);

(re: cl 7) each empty carrier type is associated with a priority and wherein the transportation system moves the empty carrier of the certain carrier type between the first stock areas and the staging area based on the priority of the certain

carrier type and the priorities of other carrier types (c 10 L 22-58; c 13 L 40-44);

(re: cl 8) the control system calculates an empty move rate for the certain carrier type as the number of empty carriers of the certain carrier type moved by the transportation system in a predetermined time period and the transportation system moves the empty carrier of the certain carrier type between the staging area and the first stock area only if the empty move rate for the certain carrier type is less than a predetermined value (c 13 L 35-44);

(re: cl 10) A method for managing empty material carriers in an automated material handling system including a plurality of material carriers including empty material carriers and one or more stock areas each including bins for storing material carriers, the method comprising: classifying at least the empty material carriers into two or more carrier types; (c6 L 56-67; c 12 L 67);

associating each of the stock areas with one or more thresholds for each carrier type (c9 L 3-11);

computing an empty percentage for each empty carrier type for a first one of the stock areas, the empty percentage for a particular empty carrier type being the percentage of bins of

the first one stock area which contain empty carriers of the particular type (c 8 L 40-52); and

selectively moving an empty carrier of a certain carrier type between a staging area and the first stock area based on a comparison of the empty percentage for the certain carrier type for the first stock area to the one or more thresholds of the first stock area for the certain carrier type (c 14 L 39-42);

(re: cl 11) the material carriers include semiconductor wafer carriers (c 14 L 43-44);

(re: cl 12) the one or more thresholds for the empty carrier of the certain carrier type include a maximum value and wherein selectively moving the empty carrier of the certain carrier type from the first stock area to the staging area includes moving the empty carrier of the certain carrier type if the maximum value is exceeded by the empty percentage of the certain carrier type (c 13 L9-14);

(re: cl 13) the one or more thresholds for the empty carrier of the certain carrier type include a minimum value and wherein selectively moving the empty carrier of the certain carrier type to the first stock area from the staging area includes moving the empty carrier of the certain carrier type if the empty percentage of the certain carrier type falls below the minimum value (c 13 L 14-19);

(re: cl 14) the staging area includes a second one of the stock (c 13 L 20-23);

(re: cl 15) calculating a system move rate as the number of the plurality of material carriers moved in the system in a predetermined time period, wherein selectively moving the empty carrier of the certain carrier type between the staging area and the first stock area includes moving the empty carrier of the certain carrier type only if the system move rate is less than a predetermined value (c 13 L 35-44);

(re: cl 16) associating each empty carrier type with a priority, wherein selectively moving the empty carrier of the certain carrier type between the first stock areas and the staging area includes moving the empty carrier of the certain carrier type based on the priority of the certain carrier type and the priorities of other carrier types (c 10 L 22-58; c 13 L 40-44);

(re: cl 17) calculating an empty move rate for the certain carrier type as the number of empty carriers of the certain carrier type moved in the system in a predetermined time period, wherein selectively moving the empty carrier of the certain carrier type between the staging area and the first stock area including moving the empty carrier of the certain carrier type

only if the empty move rate for the certain carrier type is less than a predetermined value (c 13 L 29-31).

Conboy et al. '566 does not disclose: the empty carriers are classified into a plurality of carrier types; that the empty move rates are global. The examiner takes official notice that the use of global parameters are well known. It would have been obvious for Conboy et al. '566 to use global empty move rates because global parameters are easy to transmit between diverse control modules facilitating modular control programs. It would have been obvious for Conboy et al. '566 to classify the carriers into a plurality of types because knowing the attributes and features of the carriers assists in determining which carriers to move.

Applicant challenged the examiner's assertion that the use of global parameters is well known in the programming arts for parameter passing. In rebuttal, the examiner points to Burney (c46 L 38-54) and Tau et al. (c28 L 12-c29 L 64; c 35 L 1-8; c 9 L 45-64) as evidencing that global parameter passing is well known in software control for passing parameters such as variables between routines.

2. Claims 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Conboy et al. '566 in view of Burney. Conboy et al. '566 discloses the elements previously disclosed, but

does not disclose: the empty carriers are classified into a plurality of carrier types; that the empty move rates are global. Burney discloses: the empty carriers classified into a plurality of carrier types (c2 L7-62; c33 L 8-28;c12 L 18-26; c 21 L 1-18); the use of global carrier parameters (c46 L 38-54). It would have been obvious for Conboy et al. '566 to make the empty move rate a global parameter because: global parameters ease the transmitting of parameters between diverse control routines facilitating modular control programs and routines as taught by Burney. It would have been obvious for Conboy et al. '566 to use a plurality of carrier types because classifying the carriers into a plurality of types aids in knowing the attributes and features of the carriers thereby assisting in determining which carriers to move as taught by Burney.

3. Claims 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Conboy et al. '566 in view of Tau et al.. Conboy et al. '566 discloses the elements previously disclosed, but does not disclose: the empty carriers are classified into a plurality of carrier types; that the empty move rates are global. Tau et al. discloses: the empty carriers classified into a plurality of carrier types (c34 L 1-19); the use of global carrier parameters (c28 L 12-c29 L 64; c 35 L 1-8; c 9 L 45-64). It would have been obvious for Conboy et al. '566 to

make the empty move rate a global parameter because: global parameters ease the transmitting of parameters between diverse control routines facilitating modular control programs and routines as taught by Tau et al..

It would have been obvious for Conboy et al. '566 to use a plurality of carrier types because classifying the carriers into a plurality of types aids in knowing the attributes and features of the carriers thereby assisting in determining which carriers to move as taught by Tau et al..

*(11) Response to Argument*

The applicant's arguments have been fully considered but they are unpersuasive in overcoming the rejections.

**1 (a). Whether an affidavit initially presented after final and on the second response after the initial rejection after final must be accepted to overcome a rejection.**

The applicant did not remove Conboy et al. '566 in accord with the requirements of MPEP 716.01 A (1) which requires the applicant present this material either upon the next action subsequent the rejection or any time before final rejection.

It was suggested the applicant remove the (e) based Conboy et al. '566 references on the first action as at least sixteen of the originally presented claims likely could have been overcome the prior art with a 131 affidavit, including defeat of a competitors "e" reference junior to Conboy et al. '566 .

Instead, applicant elected to overcome the prior art rejections by amending the claims with elements incorporating features of a clearly subsequently invented device from that disclosed in Conboy et al. '566, under what is presumptively the invention of applicant Ryan-a move which destroyed applicant's ability to chronologically overcome the prior art rejections.

**1 (b). Whether a 130 affidavit presented after final must be accepted to overcome some rejections when some rejected claims remain which are patentably distinct from the claims of the art used in the rejection.**

MPEP 716.01 A (1) requires the applicant present this material either upon the next action subsequent the rejection or any time before final rejection. The applicant counters that a 131 affidavit is not permitted under MPEP 718. The examiner takes exception to the applicant's position that MPEP 718 is unclear and deemed it unclear, rather suggesting applicant seeks to divert the focus away from applicant's attempt to extend prosecution through latently produced evidence. However, the cited section limits preclusion of 131 affidavits to applications under reexamination, which is not the state of this application. More significantly, no 131 affidavit was presented so the issue of MPEP 718 is moot. The preclusion of one tool for overcoming prior art references is not an automatic license of another tool. The requirements of MPEP 716.01 are not

addressed in independent of the applicability of a 131 affidavit.

**1 (c). Whether an affidavit initially presented after final and on the second response after the initial rejection after final which does not place the claims in condition for allowance, must be accepted to overcome a rejection.**

The examiner also notes that even had applicant filed the 130 affidavit in compliance with MPEP 716.01, claims 10-18 were deemed patentably distinct from the claims of Conboy et al. '566, thereby precluding its use regarding claims 10-18. Applicant is argues against the obviousness rejections of the disclosure of Conboy et al. '566. However, as patentably indistinct claims could exist without an obviating disclosure, applicant's arguments ought be deemed as an admission that claims 10-18 are patentably distinct from the claims of Conboy et al. '566 and therefore not subject to benefit of a 130 affidavit.

**2. Whether there is sufficient motivation to modify Conboy et al. '566 as claimed.**

Applicant asserts there is no motivation to pass the parameters globally. Global parameters ease the transmitting of parameters between diverse control routines facilitating modular control programs and routines. Programmers are well versed in the passing of parameters globally. Before global parameter

passing went into disfavor in the early 1990's to more modern object oriented programming techniques with emphasis on variable encapsulation, global parameter passing was the preeminent manner for passing parameters. While disfavored as sloppy parameter passing, global parameter passing is well known by programmers and regularly used because it makes the variables accessible to all subroutines and functions of the program.

The applicant asserts there is no motivation to the classify the carriers into a plurality of types because knowing the attributes and features of the carriers assists in determining which carriers to move. Classifying into types is a basic axium of object oriented analysis and programming. As such, any programmer would be motivated to classify objects into types when generating his initial data flow diagrams.

**3 (a) Whether Conboy et al. alone or in combination with Burney or Tau et al. discloses the classification of empty carriers into a plurality of types.**

(Re: Group I) Burney describes, among other ways, classifying the carriers inter differing types of carriers having dynamical alterable status types (c2 L 10-13) and typing the carriers by "class of a carrier." (C 2 L 61-62).

Tau et al. discloses creating carrier type variables including status, lot id's and carrier id's (c 34 L 1-35).

Tau et al. also discloses classifying the carriers into a plurality of groups which may be deemed a synonym for types (c2 L 1-7).

**3 (b). Whether Conboy et al. alone or in combination with Burney or Tau et al. discloses the use of global parameter passing and thereby obviate global parameter passing of mover rate parameters.**

(Re: Group IV) Burney clearly describes a method of globally passing parameters. The purpose of the described routine is for parameter passing, the variables were declared global. As such, the global parameter passing is presented. Tau et al. describes initializing a table of global variables (c9 L 45-65). The purpose of defining and initializing such global variables is to transfer variables globally.

**3 (c). Whether Conboy et al. alone or in combination obviates the use of carrier movement contingent upon prioritization.**

(Re: group II, arguments newly raised upon appeal) the applicant asserts no prioritization. Selecting carriers for Movement contingent upon empty percentage is a prioritization (c 10 L 22-58).

**3 (d). Whether Conboy et al. alone or in combination obviates the carrier movement contingent calculating a system move rate**

**for the empty carriers, and moving the carrier only if the move rate is below a predetermined threshold.**

(Re: group III, arguments newly raised upon appeal) Conboy et al. '566 discloses that some of the carrier are empty carriers, calculating a system move rate for the empty carriers, and moving the carrier only if the move rate is below a predetermined threshold. The claim 11 of Conboy et al. '566 refers to empty carriers (see abstract).

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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11/19/01

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